The diffraction of sound...

S/124/61/000/010/011/056
D251/D301

of the waveguide are found. The case of a waveguide with two channels is also considered. It is shown that the use of two channels with a few differing parameters can give a noticeable increase in the band of reflection frequencies. [Abstracter's note: Complete translation]

V
B

Card 3/3

LAPIN, A.D.

Sound propagation in branched wave guides having cavity resonators on the walls. Akust.zhur. 7 no.2:218-223 '61. (MIRA 14:7)

1. Akusticheskiy institut AN SSSR, Moskva.
(Sound—Transmission)

LAPIN, A.D.

Effect of a moving medium on sound propagation in a wave guide having cavity resonators on the walls. Akust. zhur. 7 no.4:446-449 '61. (MIRA 14:10)

1. Akusticheskiy institut AN SSSR, Moskva.
(Sound—Transmission)
(Wave guides)

S/046/62/008/002/005/016
B104/B138

AUTHOR: Lapin, A. D.

TITLE: Reflection of normal waves from the closed end of a waveguide

PERIODICAL: Akusticheskiy zhurnal, v. 8, no. 2, 1962, 189 - 193

TEXT: This is a plane problem. The waveguide is closed by a hard or soft wall at an angle of 45°, so that, for the computation, the problem can be regarded as the propagation of normal waves in two waveguides which meet at right angles. It is solved by "joining" the wave fields at the boundaries of regions with known eigenfunctions. An infinite system of algebraic equations is obtained for the amplitudes of the normal waves of the reflected field. For certain ratios between waveguide width and sound wavelength this system is solved by a reduction method. These solutions are used to study the wave field in the case of sound reflection from a serrated surface. There are 5 figures.

ASSOCIATION: Akusticheskiy institut AN SSSR Moscow (Acoustics Institute AS USSR, Moscow)

SUBMITTED: May 26, 1961

Card 1/1

S/046/62/008/004/008/017
B108/B186

AUTHOR: Lapin, A. D.

TITLE: The scattering of a plane wave from a periodically corrugated surface

PERIODICAL: Akusticheskiy zhurnal, v. 8, no. 4, 1962, 442-446

TEXT: In a previous paper (Akust. zh., 1962, 8, 2, 189-193) the reflection of a normal wave from the closed end of a waveguide was calculated. Here the results are extended to reflection from a periodically corrugated surface. When the amplitudes A_n and B_n of the normal waves reflected in a waveguide are known, the sought amplitudes of the waves scattered from the corrugated surface are given by

$$R_n = \frac{1}{2}(A_n + B_n) \text{ and } R_{-n} = \frac{1}{2}(A_n - B_n).$$

The reflection of a normal wave from an element of the corrugated surface at the end of a waveguide is calculated for a sawtooth-like surface with rectangular teeth. The effect of the corrugation of the surface element

Card 1/2

(sawtooth) on the reflection of the normal waves is estimated by the method of the small perturbations. The solution for a straight smooth surface element at the end of the waveguide previously obtained is used as zeroth approximation. An infinite system of algebraic equations for the scattered amplitudes is derived. There are 4 figures.

ASSOCIATION: Akusticheskiy institut AN SSSR, Moskva (Institute of Acoustics AS USSR, Moscow)

SUBMITTED: December 15, 1961

S/046/63/009/001/008/026
B104/B186

AUTHOR: Lapin, A. D.

TITLE: The scattering of a plane wave from a saw-toothed surface

PERIODICAL: Akusticheskiy zhurnal, v. 9, no. 1, 1963, 47-49

TEXT: In a previous paper (A. D. Lapin, Akust. zh., 1962, 8, 2, 189-193) the scattering of a plane wave from a hard or soft saw-toothed surface for given incident angles was studied. In the present study this scattering problem is solved for an arbitrary incident angle under the assumption of rectangular saw-tooths. The pressure in the incident wave is given by $p_0(x,y) = \exp\{i(\varkappa_0 x + \varphi_0 y)\}$, where $\varkappa_0 = \sqrt{k^2 - \varphi_0^2}$. The scattered field at $x < 0$ is sought in the form $p(x,y) = \sum_{n=-\infty}^{\infty} R_n \exp\{i(-\varkappa_n x + \varphi_n y)\}$, where $\varphi_n = \varphi_0 + q_n$, $\varkappa_n = \sqrt{k^2 - \varphi_n^2}$, $q_n = n\pi/a$. The amplitudes R_n are found by a method of joining the fields at

Card 1/4

The scattering of a plane ...

the boundaries of a rectangular region in which the eigenfunctions are known. It is shown that in the points (x,y) and (x,y+2a) the total field $p = p_0 + p$ $(x<0)$ differs by a phase factor $(\exp(i2a\xi_0))$; the same result holds for the field $\underline{\Phi}$ $(x>0)$. Therefore the properties of p and $\underline{\Phi}$ are studied in the interval $-a<y<a$. P and $\overline{\Phi}$ are represented as a sum of symmetric and asymmetric functions $(P = P_c + P_h;\ \overline{\Phi} = \overline{\Phi}_c + \overline{\Phi}_h)$:

$$\Phi_c(x,y) = \sum_{m=0}^{\infty}{}' \sum_{n=-\infty}^{\infty} \frac{2ix_n\beta_{n,m}(\delta_{n,0} - R_n)}{a\theta_m\zeta_m \sin(\zeta_m a)} \{(-1)^m \cos[\zeta_m(a-x)] \cos(q_m y) \pm \pm \cos(q_m x)\cos(\zeta_m y)\}, \qquad (3)$$

$$\beta_{n,m} = \begin{cases} (-1)^m \theta_m a/2 & \text{при } |\xi_n| = q_m \\ \dfrac{\xi_n \sin(\xi_n a)}{(\xi_n^2 - q_m^2)} & \text{при } |\xi_n| \neq q_m \end{cases}; \quad \theta_m = \begin{cases} 2 \text{ при } m = 0 \\ 1 \text{ при } m \neq 0 \end{cases};$$

$$\zeta_m = \sqrt{k^2 - q_m^2}$$

Card 2/4

S/046/63/009/001/008/026
B104/B186

The scattering of a plane ...

$$\Phi_s(x,y) = \sum_{m=1}^{\infty}\sum_{n=-\infty}^{\infty} \frac{2i\theta_{n,m}(\delta_{n,0}+R_n)}{a\sin(\zeta_m a)}\{(-1)^m \sin[\zeta_m(a-x)]\sin(q_m y) \mp \mp \sin(q_m x)\sin(\zeta_m y)\},$$

The R_n are determined from

$$\sum_{n=-\infty}^{\infty}\left\{\beta_{n,l}[\varkappa_n/\zeta_l \operatorname{ctg}(\zeta_l a) - i] \pm \sum_{m=0}^{\infty}\frac{2\varkappa_n a_{m,l}\beta_{n,m}}{a\theta_m\zeta_m\sin(\zeta_m a)}\right\}R_n =$$

$$= \left\{\beta_{0,l}[\varkappa_0/\zeta_l \operatorname{ctg}(\zeta_l a) + i] \pm \sum_{m=0}^{\infty}\frac{2\varkappa_0 a_{m,l}\beta_{0,m}}{a\theta_m\zeta_m\sin(\zeta_m a)}\right\},$$

где $a_{m,l} = \begin{cases} (-1)^l\theta_l a/2 & \text{при } \zeta_m = q_l \\ \dfrac{\zeta_m\sin(\zeta_m a)}{(\zeta_m^2 - q_l^2)} & \text{при } \zeta_m \neq q_l. \end{cases}$

Card 3/4

The scattering of a plane ...

and

$$\sum_{n=-\infty}^{\infty}\left\{\vartheta_{n,l}\left[\zeta_l \operatorname{ctg}(\zeta_l a) - ix_n\right] \pm \sum_{m=1}^{\infty}\frac{2q_m\mu_{m,l}\vartheta_{n,m}}{a\sin(\zeta_m a)}\right\}R_n =$$

$$= -\left\{\vartheta_{0,l}\left[\zeta_l \operatorname{ctg}(\zeta_l a) + ix_0\right] \pm \sum_{m=1}^{\infty}\frac{2q_m\mu_{m,l}\vartheta_{0,m}}{a\sin(\zeta_m a)}\right\}.$$

respectively. There are 2 figures.

ASSOCIATION: Akusticheskiy institut AN SSSR, Moskva (Institute of Acoustics AS USSR, Moscow)

SUBMITTED: January 19, 1962

LAPIN, A.D.

Reflection of normal waves from the slanted end of a rectangular wave guide. Akust. zhur. 9 no.1:123-124 '63. (MIRA 16:5)

1. Akusticheskiy institut AN SSSR, Moskva.
(Sound waves) (Wave guides)

ACCESSION NR: AP4025733 S/0046/64/010/001/0071/0080

AUTHOR: Lapin, A. D.

TITLE: Scattering of sound on the rough surface of a solid body

SOURCE: Akusticheskiy zhurnal, v. 10, no. 1, 1964, 71-80

TOPIC TAGS: sound scattering, rough surface, solid body, harmonic sound wave, Rayleigh method, scattering indicatrix, sinusoidal irregularity, small perturbation, incident wave, reflected wave, cylindrical wave, mean square dispersion

ABSTRACT: The author studies the problem of scattering of a harmonic sound wave propagated in a fluid on the rough boundary of the fluid and a solid body. The irregularities are assumed small in comparison with the wave length and rather sloping. The solution is obtained by Rayleigh's method. The author computes the indicatrices of scattering for certain types of rough surfaces and treats the problem for the case where the irregularities are of sinusoidal form. He obtains a solution for a statistically rough boundary, assuming that the deviations of the boundary ζ from its mean level y = 0 depend only on the x coordinate. The

Card 1/3

ACCESSION NR: AP4025733

scattered field due to the irregularities of ζ is sought in the first approximation (i.e., average) by the method of small perturbations, where he uses the solution of the problem for a plane boundary as the zero-th approximation. (See A. A. Andronov and M. A. Leontovich (Zur Theorie der molekularen Lichtzerstreuung an Flüssigkeitsoberflächen. Z. Phys., 1926, 38, H. 6/7, 485-501)). The author uses the obtained results for computing scattering on the rough boundary of water-ice. These computations can be useful for estimating scattering with propagation of sound in polar seas, where the thickness of the ice is so great that reflection of sound from its upper boundary can be neglected. He investigates the case where the incident field is a cylindrical wave. An asymptotic representation of the scattered field in a fluid at large distances from the source situated near the rough boundary is found. The mean square of the scattered field in a fluid at large distances from the source is computed. As an example he finds the angular characteristic of scattering for a rough surface whose correlation function is of the form $R(\tau)=\sigma^2\exp\left(-\frac{\tau^2}{\tau_0^2}\right)$, where $\sigma^2=\overline{\zeta^2}$ and τ_0 is the characteristic scale of roughness. He assumes that $K\tau_0 \gg 1$, and he applies the results to computation of the scattered field on the rough boundary of water-ice. Orig. art. has: 6

Card 2/3

ACCESSION NR: AP4025733

figures and 21 formulas.

ASSOCIATION: Akusticheskiy institut AN SSSR Moscow (Acoustical Institute, AN SSSR)

SUBMITTED: 16May63 DATE ACQ: 10Apr64 ENCL: 00

SUB CODE: PH NO REF SOV: 005 OTHER: 001

Card 3/3

L 31561-66 EWT(1) IJP(c) WW

ACC NR: AP6007995 SOURCE CODE: UR/0046/66/012/001/0059/0067

AUTHOR: Lapin, A. D.

ORG: Institute of Acoustics, AN SSSR, Moscow (Akusticheskiy institut AN SSSR)

TITLE: The dispersion of sound on a solid surface with rough boundaries

SOURCE: Akusticheskiy zhurnal, v. 12, no. 1, 1966, 59-67

TOPIC TAGS: acoustic wave, elastic wave, wave propagation, boundary layer

ABSTRACT: The author investigates an elastic layer on a liquid halfspace (see Fig. 1). The upper boundary of this layer is smooth and free, and the lower boundary is rough. A harmonic wave with a frequency of ω is incident on the elastic layer from the liquid. It is assumed that the irregularities ζ are small compared to the lengths of the waves propagating in the liquid and in the solid, and sufficiently flat, i.e., $|2\pi\zeta/\lambda| \ll 1$, $\left|\frac{\partial\zeta}{\partial x}\right| \ll 1$, $\left|\frac{\partial\zeta}{\partial y}\right| \ll 1$,

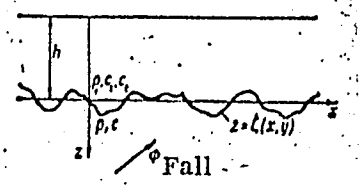


Fig. 1. Diagram of an elastic layer on a liquid halfspace.

Card 1/2 UDC: 534.26

L 31561-66

ACC NR: AP6007995

where λ is any of the wavelengths in the liquid or in the solid. The dispersion of the field, due to the ζ, is sought in the first approximation by the method of small perturbations, taking the solution to the problem for a uniform boundary as the zero approximation. Calculations are made of the dispersion indicatrix for some values of the parameters of the problem. Orig. art. has: 4 figures and 20 formulas.

SUB CODE: 20 / SUBM DATE: 28Jun64 / ORIG REF: 004 / OTH REF: 001

Card 2/2 XC

ACC NR: AP6015691 SOURCE CODE: UR/0413/66/000/009/0089/0089

INVENTOR: Lapin, A. D.

ORG: None

TITLE: A method for damping sound. Class 42, No. 181331

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 9, 1966, 89

TOPIC TAGS: sound absorption, acoustic damping, waveguide acoustics

ABSTRACT: This Author's Certificate introduces a method for damping sound by absorption in a waveguide lined with an acoustically absorbent material. Sound attenuation is improved by using resonator branches in the waveguide for transformation of nromal low-frequency waves to normal waves of high orders (numbers) which are easily absorbed by the walls of the waveguide.

SUB CODE: 20/ SUBM DATE: 04Jan65

Card 1/1 UDC: 534.833.534.62-758.34

ACC NR: AP6029531 (A,N) SOURCE CODE: UR/0046/66/012/003/0333/0339

AUTHOR: Lapin, A. D.

ORG: Acoustics Institute, AN SSSR, Moscow (Akusticheskiy institut AN SSSR)

TITLE: Use of resonators to increase the damping of sound in a waveguide lined with sound-absorbing material

SOURCE: Akusticheskiy zhurnal, v. 12, no. 3, 1966, 333-339

TOPIC TAGS: waveguide acoustics, sound wave, wave propagation, sound absorption, acoustic damping, resonator

ABSTRACT: The author proposes a method for increasing the damping of sound in a waveguide faced by sound-absorbing material, by transforming the weakly attenuated normal waves of lower wave numbers into normal waves of high numbers, which are more efficiently absorbed by the waveguide walls. This transformation of the normal waves is effected with the aid of resonators acoustically coupled to the waveguide. When sound waves having a frequency equal to the natural frequency of the resonators or close to it [illegible] the waveguide, intense scattering of the sound by the resonators takes place. This transforms the normal waves of the lower numbers into normal waves of higher numbers. The type of the resonators and the method of their acoustic coupling is of no principal significance. By way of illustration of the proposed method, the author analyzes the propagation and scattering of sound in a waveguide having a resonator on its wall (Helmholz resonator), with the dimensions of the res-

Card 1/2 UDC: 534.833.534

ACC NR: AP6029531

onator small compared with the wavelength of the sound. The theoretical analysis is made first for a perfectly rigid waveguide wall, and is then extended to include sound-absorbing lining. The attenuation of the incident wave following passage through the resonator is calculated. Plots illustrating the attenuation effect as a function of the wave mode are presented. Orig. art. has: 5 figures and 8 formulas.

SUB CODE: 20/ SUBM DATE: 29Jan65/ ORIG REF: 004/ OTH REF: 001

Card 2/2

L 15637-63 EWP(k)/EWP(q)/EWT(m)/BDS AFFTC/ASD Pf-4 JD/HW

ACCESSION NR: AP3000828 S/0286/63/000/002/0008/0008

AUTHOR: Lapin, A. F., Mokin, N. M., Krylov, Ye. S.

TITLE: Method of manufacturing microscreens. Class B 21c, 7d, 16, No. 152642

SOURCE: Byul. izobreteniy i tovarnykh znakov, no. 2, 1963, 8

TOPIC TAGS: miniature screen, drawing, die casting

ABSTRACT: Method of manufacturing miniature screens by drawing a stock part in the form of a copper shell on which is assembled copper-plated wire through draw dies and cutting into items of uniform size with subsequent etching of the aluminum; its distinguishing feature is that in order to obtain micro screens with more than 15,000 holes and to improve the quality of the screens, the stock part is first cold-pressed in a die after preliminary drawing in a single pass to obtain the required dimensions. No graphics. [Abstracter's note: complete translation]

Card 1/2

LAPIN, A.I.

Subfields of hyperelliptic fields. Part 1. Izv. AN SSSR. Ser. mat. 28 no.5:953-988 S-O '64. (MIRA 17:11)

USSR/Mathematics - Stochastics

Card 1/1

Author : Skorokhod, A. V.

Title : A theorem relative to stable distributions

Periodical : Usp. mat. nauk, 9, No 2(60), 189-190

Abstract : Briefly investigates the analytic nature of stable distribution functions for values of the characteristic index alpha less than 1. The case for alpha greater than or equal to 1 was treated by A. I. Lapin, for the results of which see B. V. Gnedenko and A. N. Kolmogorov, Predel'nyye raspredeleniya dlya summ nezavisimykh sluchaynykh velichin [Limit distributions for sums of independent random quantities], State Technical Press, 1949. Acknowledges the guidance of Professor B. V. Gnedenko, who posed the problem for the author.

Submitted : March 6, 1954

PA 242T54

USSR/Mathematics - Modern Algebra Jan/Feb 53

"Theory of Shafarevich's Symbol," A. I. Lapin

"Iz Ak Nauk SSSR, Ser Matemat" Vol 17, No 1, pp 31-50

Contains the complete theory of the symbol (λ, μ) introduced by I. P. Shafarevich ("General Law of Reciprocity," Matemat Sbornik, 26 (68), No 1 (1950) pp 113-146). Demonstrates the invariancy of this symbol and then utilizes it to construct the local theory of fields of classes. Subject symbol is defined for any numbers lambda and mu, different from 0, of a discretely normed field k of characteristic 0 containing the root of the power p^n of 1 with field of deduction classes of characteristic p. Submitted by Acad I. M. Vinogradov 2 Jul 51.

242T54

LAPIN, A. I.

242T54

LAPIN, A. I.

USSR/Mathematics - Modern Algebra

Card 1/1

Author : Lapin, A. I.

Title : Theory of the Shafarevich symbol

Periodical : Izv. AN SSSR, Ser. mat. 18, 145-158, Mar/Apr 1954

Abstract : Treats the local structure of the local theory of fields of classes for Abelian extensions of prime odd index l. Acknowledges helpful advice of I. R. Shafarevich. Six references: 2 USSR, dated 1950 and 1953, by Shafarevich and Lapin; others by H. Hasse, E. Witt, H. Weyl, C. Chevalley.

Submitted : October 13, 1952

LAPIN, A. I.

USSR/Mathematics - Algebraic number theory FD-632

Card 1/1 : Pub. 47 - 4/5

Author : Lapin, A. I.

Title : General law of reciprocity, and a new basis for the theory of fields of classes

Periodical : Izv. AN SSSR, Ser. mat., 18, 335-378, Jul/Aug 1954

Abstract : Solves the following problem: to derive the integral theory of fields of classes from the locally constructed local theory of fields of classes. The main role played here is the law of reciprocity, which was formulated and proved in the general form by I. R. Shafarevich, Mat. sb., 26(68), 1 (1950), 103-146), relying, however, upon the theory of fields of classes. The essential part of the present work is an elementary proof of the general law of reciprocity that do not use the theory of fields of classes. The author acknowledges the assistance of I. R. Shafarevich, who posed the problem.

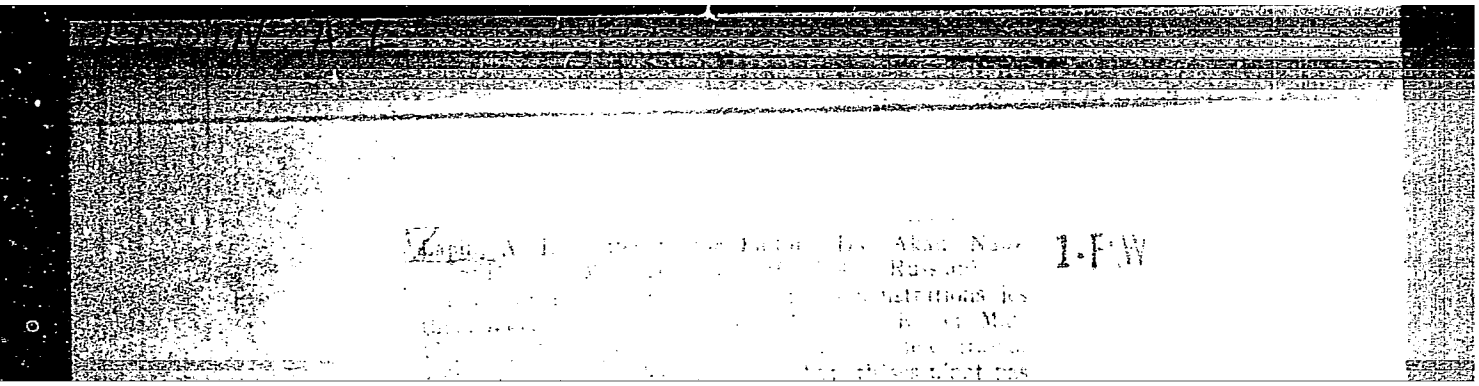
Institution : --

Submitted : October 13, 1952

LAPIN, A.I.

SUBJECT USSR/MATHEMATICS/Theory of functions CARD 1/1 PG - 768
AUTHOR LAPIN A.I.
TITLE On modular functions of second degree.
PERIODICAL Izvestija Akad.Nauk 20, 325-336 (1956)
reviewed 5/1957

In the present paper the author proves that the field of modular functions of second degree is isomorphic to the field of rational functions of three independent variables. The proof bases on Weierstrass' theory of the reversion of hyperelliptic integrals. The author essentially uses the fact that between the modular functions of p-th degree and the Abelian functions of p variables there exists the same connection as between the ordinary modular functions and the elliptic functions, where for p = 2 the general Abelian functions agree with those Abelian functions which appear at the classical reversion of the Abelian integrals.



RYKHLIK, Karel (Praga); LAPIN, A.I. [translator]

Theory of real numbers in the manuscripts of Bolzano. Ist.-mat. issl. no.11:515-532 '58. (MIRA 12:1)
(Numbers, Theory of)

L 21317-65 EWT(d) IJP(c)/ESD(gs)

ACCESSION NR: AP5004473 S/0038/64/028/005/0953/0988

AUTHOR: Lapin, A. I.

TITLE: Subfields of hyperelliptic fields. I

SOURCE: AN SSSR. Izvestiya. Seriya matematicheskaya, v. 28, no. 5, 1964, 953-988

TOPIC TAGS: curve geometry

Abstract: In this paper the author studies the manifold $W_{k,p}$ of hyperelliptic fields of class p containing not less than k elliptical subfields. It is shown that each of its components has dimensionality d = p - k + 1 and the hyperelliptic field of class p, containing exactly k distinctive maximum elliptical subfields, corresponds to its common point.

The results obtained are applied to the study of rational points of an elliptic curve; specifically, it is shown that for any n > 0 over a field C(t) there exists an elliptic curve with a constant, absolute invariant, the rank of which is $\geq n$. Orig. art. has 71 formulas.

ASSOCIATION: none

SUBMITTED: 10May61 ENCL: 00 SUB CODE: MA

NO REF SOV: 000 OTHER: 001 JPRS

Card 1/1

LAPIN, A.I.

Rational points on an elliptic curve. Izv. AN SSSR. Ser. mat. 29 no.3:701-716 '65. (MIRA 18:6)

L 25639-66 EWT(d) IJP(c)

ACC NR: AP6016079 SOURCE CODE: UR/0038/65/029/003/0701/0716

AUTHOR: Lapin, A. I.

21
13

ORG: none

6

TITLE: Rational points of an elliptical curve

SOURCE: AN SSSR. Izvestiya. Seriya matematicheskaya, v. 29, no. 3, 1965, 701-716

TOPIC TAGS: polynomial, mathematic matrix

ABSTRACT: In this article the following theorem is formulated and proved: For any p there exists over the field k = C(x) a non-degenerate elliptical curve of the type π = 1 which has at least p independent integral points. Analogies to the degenerate case are used to find the integral points. A series of polynomial relationships and matrix products is used in the description of the system and the proof. Orig. art. has: 35 formulas. [JPRS]

SUB CODE: 12 / SUBM DATE: 18Jan62 / ORIG REF: 001

2

Card 1/1 FV UDC: 513.6

LAPIN, A.N. (Primorskiy kray).

Novocaine therapy of psoriasis. Vest.ven.i derm. no.2:55 Mr-Ap '53. (MLRA 6:5)

(Psoriasis) (Novocaine--Therapeutic use)

1. LAPIN, A. P.

2. USSR (600)

7. Preparation of Patterns for Worm-Grove Cutting on a Coordinate Boring Machine, Machine Tools and the Bit No. 10, Oct 52

9. Compilation of Information of the USSR Machine and Machine Tools Industry Contained in Soviet Publications. [redacted]

LAPIN, A. P.

USSR/ Engineering - Mechanics

Card 1/1 Pub. 128 - 5/35

Authors : Lapin, A. P., Cand. Tech. Sc., Docent

Title : Rack-and-pinion jack

Periodical : Vest. mash. 35/3 12 - 13, Mar 1955

Abstract : A description is presented of a rack-and-pinion jack manufactured at the "Kommunist" factory in Krivoi Rog. The jack lifts 5500 kg to a height of 270 mm and weighs 31 kg. Two USSR references (1948-1949). Drawings.

Institution : .....

Submitted : .....

LAPIN, A.F., dotsent, kand. tekhn. nauk

Transmission from an eccentric structure, kinematics, and synthesis. Sbor. nauch. trud. [illegible] no.14:248-253 '61
(MIRA 17:8)

LAPIN, A.P., dots.

Transmission with intermediate links. Sud.sil.ust. no.1:89-99 '61. (MIRA 15:7)

1. Odesskoye vyssheye inzhenernoye morskoye uchilishche. (Gearing)

Lapin, A. S. The problem of two bodies with varying masses. Leningrad. State Univ. Annals [Uchenye Zap. Leningrad. Gos. Univ.] no. 87 [Math. Ser. 13. Mechanics] 3–55 (1944). (Russian)

Adopting the point of view of Meščersky [Dynamics of a Point with Varying Mass, St. Petersburg, 1897 (in Russian)] that a point of varying mass represents a body which gains or loses some amount of its mass during the process of motion, the differential equations of motion in the problem of two bodies attracting each other according to the law of Newton are set up for the following three astronomical cases: (i) The masses m and m' of the two bodies decrease because of radiation (binary stars, the Sun and a comet, under the assumption that the mass lost by the comet leaves it with zero or almost vanishing relative velocity). (ii) The mass m of one of the bodies decreases because of radiation or interest because of absorption of a dust from a cosmic cloud assumed to be at every moment in statistical equilibrium with respect to the body. The mass m' of the second body increases on account of a dust from a cosmic cloud which at every moment is supposed to be in statistical equilibrium with respect to some Galilelian system (the Sun and a planet). (iii) The masses of the two bodies increase because of absorption of a dust from a cosmic cloud supposed to be at every moment in statistical equilibrium with respect to some Galilelian system (the Sun and a planet, between orbits, under the assumption that the increase of mass of a radiating body by absorption of a cosmic dust proceeds more rapidly than the decrease of mass by radiation). An example of a more general case of two bodies with varying masses was considered by Seeliger [Abh. Bayer. Akad. Wiss. München Kl. II. 17, 457–490 (1891)].

In case (i) the differential equations of the relative motion have the same form as in the case of constant mass. In case (ii) the problem can be solved by the method of successive approximations if m' increases very slowly. In case (iii) the differential equations of the absolute motion (with respect to the above mentioned Galilelian system) possess

Source: Mathematical Reviews, Vol 11 No. 3

Lapin, A. S.

LAPIN, A. V.

Process of the melilitization of ultrabasic-alkali rocks in the Kovdar massif. Trudy IMGRE no.9:207-223 '62.
(MIRA 16:1)

(Kovdar region--Melilite)

LAPIN, A.V.

Nephelinization of pyroxenite and vein ijolites in the Kovdor Massif of ultrabasic alkali rocks. Izv. AN SSSR.Ser.geol. 28 no.5: 9-22 My '63. (MIRA 17:4)

1. Institut mineralogii, geokhimii i kristallokhimii redkikh elementov, Moskva.

IAPIN, A.V.; ZHABIN, A.G.

Modular structures of chromite and dunite as a result of unbalanced eutectic crystallization. Dokl. AN SSSR 163 no.5:1240-1243 Ag '65. (MIRA 18:8)

1. Institut mineralogii, geokhimii i kristallokhimii redkikh elementov. Submitted March 2, 1965.

LAPIN, A. V.

112-2-3506

Translation from: Referativnyy Zhurnal, Elektrotekhnika, 1957, Nr 2, p.145 (USSR)

AUTHOR: Lapin, A.V.

TITLE: Research on Split-Pole Exciters for Diesel-Locomotive Master Generators (Issledovaniye vozbuditeley s rasshcheplennymi polyusami dlya glavnykh generatorov teplovozov)

PERIODICAL: In sbornik: Materialy nauch-tekhn. soveshchaniya po tyagovomu elektrooborudovaniyu. Noyabr', 1953, Riga, 1955, pp.96-101

ABSTRACT: Exciters are of 2 types, differing as to design of the magnetic circuit: 1) those with longitudinally split poles and 2) those with radially split poles. Problems related to their design and to the choice of optimum parameters have not been sufficiently studied. A graphic-analysis method is proposed for calculating the static characteristics of the exciter, selecting exciter winding parameters and the dimensions of the saturated pole. This

Card 1/2

LAPIN, A.V., inzhener.

Method of calculating the split-pole exciter for the main Diesel engine of a locomotive. Sbor.LIIZHT no.149:84-107 '55.(MLRA 9:6)
(Diesel locomotives)

LAPIN, A.V.

PHASE I BOOK EXPLOITATION SOV/5518

Gakkel', Yekaterina Yakovlevna, Doctor of Technical Sciences, Vladimir Arsen'yevich Kozhevnikov, Engineer, Boris Georgiyevich Kuznetsov, Engineer, Andrey Vladimirovich Lapin, Candidate of Technical Sciences, Mikhail Andreyevich Nikulin, Candidate of Technical Sciences, and Grigoriy Semenovich Ezrin, Engineer.

Elektricheskiye mashiny i elektrooborudovaniye teplovozov (Electric Machines and the Electrical Equipment of Diesel-Electric Locomotives) Moscow, Transzheldorizdat, 1960. 218 p. 10,000 copies printed.

Ed. (Title page): Ye. Ya. Gakkel'; Ed.: N. M. Khutoryanskiy, Candidate of Technical Sciences; Tech. Ed.: Ye. N. Bobrova.

PURPOSE: This textbook was approved in 1958 by GUUZ (Glavnoye upravleniye uchebnymi zavedeniyami - Main Administration of Schools) of the Ministry of Railroads, for use by students in institutes of railroad transportation.

COVERAGE: The book examines the purpose, arrangement, and operation of the elements of electrical transmission in Diesel-electric (D-E)

Card 1/8

locomotives, and in auxiliary machinery and apparatus. Information on the structure of electrical machines and apparatus and examples of their design are given. The circuits of modern Soviet D-E locomotives including the new TE10 and TE50 locomotives, are described. The circuit of the TE-3 lot-produced D-E locomotive is examined in detailed. Primary materials included in the book come from the texts of courses given by teachers of the Leningradskiy institut inzhenerov zheleznodorozhnogo transporta (Leningrad Institute of Railroad Transportation Engineers), and from the Khar'kovskiy zavod "Elektrotyazhmash" (Khar'kov Heavy Electrical Machinery Plant). Chs.I and VII were written by Ye. Ya. Gakkel'; Ch.II by M. A. Nikulin and Ye. Ya. Gakkel'; Ch.III by A. V. Lapin; Ch.IV by G. S. Ezrin (sec. 7 by V. V. Strekopytov, Engineer); Ch.V by B. G. Kuznetsov (secs. 9 and 10 by Ye. Ya. Gakkel'); and Ch.VI by V. A. Kozhevnikov. The authors thank A. Ye. Alekseyev, Corresponding Member, AS USSR, K. I. Rudaya, Candidate of Technical Sciences, and A. D. Stepanov, Doctor of Technical Sciences, for their advice, and Ye. F. Kholmovskaya and I. F. Pushkarev, Engineers, and A. N. Korotkova, Laboratory Assistant, who helped with the manuscript. There are 29 references, all Soviet.

Card 2/8

REYNGOL'DT, Yuriy Anatol'yevich; ALEKSEYEV, A.Ye., retsenzent; LAPIN, A.V., kand. tekhn. nauk, dots., retsenzent; KUZ'MENKOV, O.P., inzh., retsenzent; SHORIN, V.P., red.; VOLCHOK, K.M., tekhn. red.

[Electrical equipment of industrial enterprises for inland-water transportation] Elektricheskoe oborudovanie promyshlennykh predpriiatii rechnogo transporta. Leningrad, Izd-vo "Rechnoi transport," 1961. 356 p. (MIRA 15:3)

1. Chlen-korrespondent Akademii nauk SSSR (for Alekseyev).
(Hydraulic structures--Electric equipment)
(Harbors--Electric equipment)
(Docks--Electric equipment)

LAPIN, A.V.; KUROVA, A.V., red.; KLEYMAN, L.G., tekhn.red.

[Fundamentals of electric drives; textbook for the forth and fifth year students specializing in the "Electrification of railroad transportation," "Thermal power systems for electric power stations," "Cars and car operation, maintenance and repair," "Construction and road machinery and equipment"] Osnovy elektroprivoda; uchebnoe posobie dlia studentov IV i V kursov spetsial'nostei: "Elektrifikatsiia zheleznodorozhnogo transporta," "Teploenergeticheskie ustanovki elektrostantsii," "Vagony i vagonnoe khoziaistvo," "Stroitel'nye i dorozhnye mashiny i oborudovanie." Moskva, VZIIT, 1963. 99 p. (MIRA 17:3)

BORODIN, L.S.; LAPIN, A.V.

Perovskite olivinites and carbonatites as possible types of complex tantatalum-bearing and niobium ores. Sov.geol. 8 no.11:132-136 N '65. (MIRA 19:1)

1. Institut mineralogii, geokhimii i kristallokhimii redkikh elementov Gosudarstvennogo geologicheskogo komiteta.

SOV/180-59-3-35/43

AUTHORS: Kazakov, Ye.N., Lapin, A.Ya. and Tyazhelova, A.A.(Moscow)

TITLE: Surface-Active Substances from Neutral Oils Obtained from Brown Coal Tar

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Metallurgiya i toplivo, 1959, Nr 3, pp 164-170(USSR)

ABSTRACT: The results of an investigation of tar obtained on thermal treatment of the Aleksandriysk brown coal in a pilot plant of the Institute of Thermal Techniques of the Academy of Sciences of the UkrSSR, at a temperature of about 600°C are reported. A neutral oil separated from the tar was studied by chemical and physico-chemical analytical methods. For this purpose it was preliminarily fractionated into 3 fractions boiling within ranges: 200 - 230°; 230-270° and 270-310°C. Characteristics of the separated fractions are given in table 1. The largest fraction, boiling at 230-270°C, was then separated into groups of compounds using chromatography on silicagel (Table 2). The following group composition of the above fraction was established: paraffin-naphthenic hydrocarbons - 6.6%; unsaturated - 8.8%; aromatic and sulphurous - 67.8%;

Card 1/3

Surface-Active Substances from Neutral Oils Obtained from Brown Coal Tar

neutral oxygen containing compounds 14.10%; losses - 3.3%. On the basis of aromatic hydrocarbons and olefines surface active substances of the type alkylarylsulphonates were synthesised and thoroughly investigated. On the basis of their properties (surface tension, floculation of calcite, foaming and washing properties) the alkylarylsulphonates obtained can be recommended as detergents for the production of synthetic washing media in quality similar to those obtained from petroleum distillates. The best properties are possessed by alkylarylsulphonates produced from the neutral oil fraction boiling at 230-270°C. During the process of sulphonation of aromatic compounds with short side chains they are, apparently, simultaneously alkylated by the olefines present with the formation of long side chains which leads to the formation of alkylarylsulphonates with adequate washing properties.

SOV/180-59-3-35/43

Surface-Active Substances from Neutral Oils Obtained from Brown Coal Tar

There are 7 figures, 4 tables and 4 references, 3 of which are Soviet and 1 German.

SUBMITTED: July 22, 1958

Card 3/3

USSR/Medicine - Pathology LAPIN, B.A. FD-3381

Card 1/1 Pub. 17 - 5/22

Author : Lapin, B. A.

Title : Pathogenesis of myocardinal infarction

Periodical : Byul. eksp. biol. i med. 8, 19-21, Aug 1955

Abstract : Author experimented with monkeys, dogs and cats by tying off the coronary arteries either with or without preliminary anesthetization of the vessel walls and the results lead him to believe that anesthetization of blood vessels walls leads to the formation of occlusions and that functional vasomotor disturbance of the coronary arteries is of leading importance in the formation of myocardinal infarctions. 5 references, 4 USSR, 3 since 1940. No graphs.

Institution : Sukhumi Medico-Biological Station (Dir. Cand Med Sci I. A. Utkin)

Submitted : 18 Dec 1954

LAPIN, B. A.

"Characteristics of Cardiac Blood Circulation in Angina Pectoris. The Mechanism of Infarct Development in the Myocardium(Roentgenovasographic and Histotopographic Study)." Cand Med Sci, Acad Med Sci USSR, Sukhumi, 1953. (RZhBiol, No 7, Dec 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556 24 Jun 55

LAPIN, B. A. and GVAZAVA, I. S.

"Analysis of the Death of the Monkey Ufa" a report prepared at Sukhumi Medico-Biological Station, AMS USSR, 1954.

So: Review of Eastern Medical Sciences, Munich, No. 2, 1956.

LAPIN, B. A.

"Mechanism of Appearance of Myocardial Infarct during Ligature of the Coronary Artery" a report prepared at Sukhumi Medico-Biological Station, AMS USSR, 1954.

So: Review of Eastern Medical Sciences, Munich, No. 2, 1956.

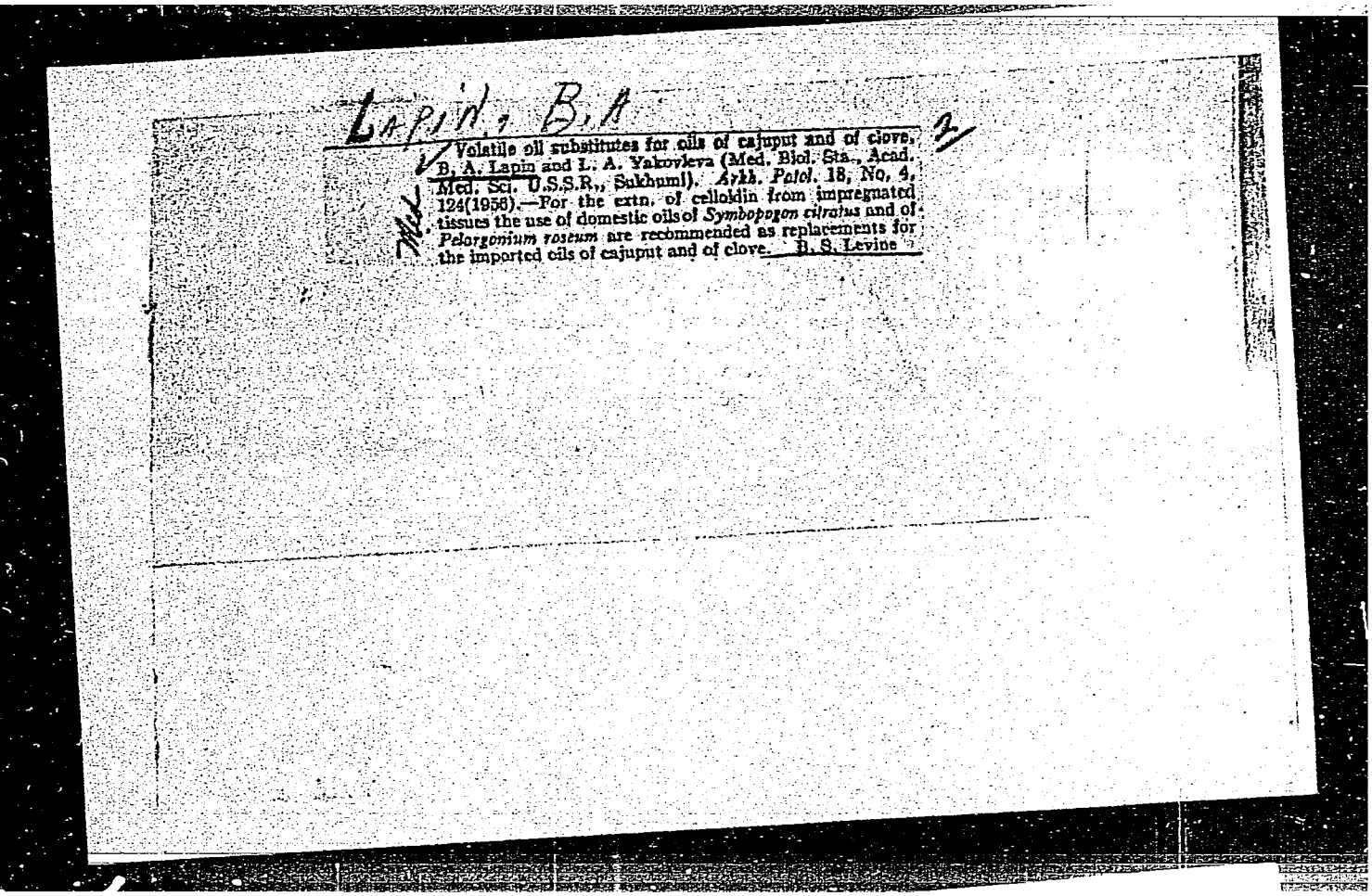
LAPIN, B. A.

EXCERPTA MEDICA Sec.5 Vol.10/3 Gen.Pathology Mar 57

746. LAPIN B. A. Med. Biol. Stat. A. M. N. S. S. S. R., Suchumi. *Tick bronchitis in monkeys (Russian text) ARKH. PATOL. 1956, 18/4 (57-61) Illus. 5

At the medical-biological institute in Suchumy, 14 monkeys (Rhesus, Macacus etc., also one baboon), which were kept there for experimental purposes and died from various diseases, showed as a secondary finding tick bronchitis. In the lungs there were bronchiectases and small abscesses, in which small, whitish ticks, 0.4 to 0.5 mm. in size, were observed (the species is not mentioned). The morbid-anatomical changes resembled paragonimiasis. There was a strikingly marked development of the smooth muscles round the cavities, which is interpreted as muscular cirrhosis.

Brandt - Berlin



Lapin, B. A.

Volatile oil substitutes for oils of cajuput and of clove. B. A. Lapin and L. A. Yakovleva (Med. Biol. Sta., Acad. Med. Sci. U.S.S.R., Sukhumi). *Arkh. Patol.* 18, No. 4, 124(1956).—For the extn. of celloidin from impregnated tissues the use of domestic oils of *Symbopogon citratus* and of *Pelargonium roseum* are recommended as replacements for the imported oils of cajuput and of clove. B. S. Levine

LAPIN, B.A. (Sukhumi)

Case of chronic aneurysms of the anterior and posterior walls of the left ventricle in the macaque. Arkh.pat. 18 no.8:92-95 '56. (MLRA 10:2)

1. Iz laboratorii morfologii Sukhumskoy mediko-biologicheskoy stantsii AMN SSSR (dir. I.A.Utkin)

(HEART, aneurysm,
in monkey (Rus))
(MONKEYS, diseases,
cardiac aneurysm (Rus))

LAPIN, B.A.; YAKOVLEVA, L.A.; PEKERMAN, S.M.

Experimental paratyphoid B in monkeys. Biul. eksp. biol. i med. 41 no. 1:33-38 Ja '56. (MLRA 9:5)

1. Iz Sukhumskoy mediko-biologicheskoy stantsii (dir.-kandidat biologicheskikh nauk I.A. Utkin) AMN SSSR, Predstavleno deystvitel'nym chlenom AMN SSSR I.V. Davydovskim.

(PARATYPHOID FEVER, exper.
B type in monkeys)

T

USSR/Human and Animal Physiology. The Effects of Physical Factors.

Abs Jour: Ref Zhur-Biol., No 20, 1958, 93737.

Author : Yakovleva, L...., Lapin, B...., Pikerman, S.M., Novikova, M.I., Avetisova, S....

Inst :

Title : Characteristics of Paratyphoid Breslau in Monkeys Having Radiation Sickness.

Orig Pub: Med. radiologiya, 1957, 2, No 4, 58-65.

Abstract: Young Macacus monkeys were infected with a twenty-four hour culture of Bacterium typhi Breslau growing on solid agar, and they were then subjected to radiation of 250 - 400 r. Progressive leukopenia and increased mortality were observed. Preliminary specific immunization favored a lowered mortality rate. Development of an anti-

Card : 1/2

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LAPIN, B. A.

USSR/Human and Animal Physiology. The Effects of Physical Efforts. T

Abs Jour: Ref Zhur-Biol., No 20, 1958, 93739.

Author : Yakovleva, L.A., Lapin, B.A., Pekerman, S.M., Novikova, M.I., Avetisova, S.A.

Inst :

Title : The Problem of the Influence of General Roentgen Exposure on the Course of Paratyphoid B in Monkeys.

Orig Pub: Tr. Vses. konferentsii po med. radio. Eksperim. med. radiol. M., Medgiz, 1957, 185-187.

Abstract: Young monkeys (Macacus Rhesus and Macacus Chinese) were injected intraperitoneally with 30 - 50 milliard bacterial organisms of a strain of paratyphi B, and then they were exposed to a dose of 16.3 r/min. In animals, non-immunized to paratyphoid and exposed to a dose of

Card : 1/2

USSR/Human and Animal Morphology (Normal and Pathological) - S
The Method and Technique of Investigation

Abs Jour : Ref Zhur Biol., No 6, 1959, 26060

Author : Lapin, B.A., Yakovleva, L.A.
Inst :
Title : The Application of Volatile Oils in Histologic Practice

Orig Pub : Byul. eksperim. biol. i meditsiny, 1957, 44, No 8, 118-119

Abstract : Volatile oils of Cymbopogon citratus, Ocimum gratissimum, Eucaliptus citriodare, Eucaliptus viminalis, Pelargonum roseum, Pogostemon patschuli and Malalluca alternifolia were tested. In staining of nervelcells, the best substitutes for cajeput oil are the oils of Malalluca alternifolia and Pogostemon patschuli, In application of these oils, the staining of sections does not differ from those in control which were placed into cajeput oil. In the oil of Malalluca alternifolia,

Card 1/2

LAPIN, B.A., red.

[Problems of infectious pathology in experiments with monkeys] Voprosy infektsionnoi patologii v eksperimente na obez'ianakh. Sukhumi, 1958. 194 p. (MIRA 12:3)
(DYSENTERY)

LAPIN, B. A., Doc of Med Sci -- (diss) "Data Toward the Comparative Pathology ofMonkeys," Sukhumi, 1959, 31 pp (Institute ofExperimental Pathology and Therapy, Acad Med Sci USSR) (KL, 1-60, 125)

LAPIN, B.A.; YAKOVLEVA, L.A. (Sukhumi)

Tumors of the gastrointestinal tract in monkeys following prolonged intake of cholesterol. Arkh.pat. 21 no.10:25-30 '59. (MIRA 14:8)

1. Iz laboratorii patologicheskoy anatomii (zav. - kandidat meditsinskikh nauk B.A.Lapin) Instituta eksperimental'noy patologii i terapii AMN SSSR (dir. I.A.Utkin).
(DIGESTIVE ORGANS--CANCER)
(CHOLESTEROL--PHYSIOLOGICAL EFFECT)

LAGUTINA, N.I., prof., red.; LAPIN, B.A., doktor med. nauk, red.; CHERKOVICH, G.M., kand. med. nauk, red.; SOLOPAYEV, B.P., kand. med. nauk, red.; DIKOVENKO, Ye.A., kand. med. nauk, red.; FUFACHEVA, A.A., mladshiy nauchnyy sotr., red.; AVAKOV, P.V., tekhn. red.

[Problems in the physiology and pathology of monkeys]Voprosy fiziologii i patologii obez'ian; sbornik rabot. Sukhumi, 1961. 339 p. (MIRA 15:11)

1. Akademiya meditsinskikh nauk SSSR, Moscow. Institut eksperimental'noi patologii i terapii, Sukhum.
(MONKEYS—PHYSIOLOGY)

LAPIN, B.A.; STASILEVICH, Z.K.

Effect of ionizing radiations on the course of infection and the state of immunity in experimental measles in monkeys. Med.rad. 7 no.7:62-67 Jl '62. (MIRA 15:11)

1. Iz laboratorii patologicheskoy anatomii (zav. - doktor med. nauk B.A. Lapin) Instituta eksperimental'noy patologii i terapii AMN SSSR.
(MEASLES) (IMMUNITY) (RADIATION—PHYSIOLOGICAL EFFECT)

LAPIN, B.A.

"Spontaneous" diseases in monkeys and the prospects for using them as models for the most important human diseases. Vest. AMN SSSR 17 no.11:82-89 '62. (MIRA 16:1)

1. Institut eksperimental'noy patologii i terapii AMN SSSR, Sukhumi.

(PATHOLOGY, EXPERIMENTAL)

LAPIN, Boris A., dr.

"The Use of the Baboon for the Preparation of Antiserum for Virus Identification"

Sukhumi Institute of Experimental Pathology and Therapeutics, Sukhumi, U.S.S.R.

FIRST INTERNATIONAL SYMPOSIUM ON THE BABOON AND ITS USE AS AN EXPERIMENTAL ANIMAL

San Antonio, Texas 5-8 November 1963

LAPIN, Boris Arkad'yevich; LININ, Eman Petrovich; YUKHNOVSKAYA, S.I., red.

[Monkey farm in Sukhum] Obez'ianii pitomnik v Sukhumi. Moskva, Meditsina, 1964. 53 p. (MIRA 17:6)

ZIL'BER, L.A.; LAPIN, B.A.; ADZHIGITOV, F.I.

On the pathogenesis of the chicken Rous sarcoma virus in monkeys.
Vop. virus 9 no.4:498-499 Jl-Ag '64. (MIRA 18:7)

1. Institut eksperimental'noy patologii i terapii i Institut epidimiologii i mikrobiologii imeni N.F. Gamaleĭ AMN SSSR.

L 14282-66 EWT(1)/FS(v)-3 SCTB DD/RD

ACC NR: AT6003866 SOURCE CODE: UR/2865/65/004/000/0322/0332

AUTHOR: Kotovskaya, A. R.; Vasil'yev, P. V.; Lapin, B. A.; Simpura, S. F.; Shakhlamov, V. A.; Artem'yeva, N. S.

36
B+1

ORG: none

TITLE: Effect of transverse accelerations on the organism of female monkeys

2,44

SOURCE: AN SSSR. Otdeleniye biologicheskikh nauk. Problemy kosmicheskoy biologii, v. 4, 1965, 322-332

TOPIC TAGS: cardiovascular system, experiment animal, biologic acceleration effect, biologic respiration, space physiology, histology, biologic reproduction, space biologic experiment

ABSTRACT: Tests were conducted on 16 half-grown monkeys, 5 mandrill and 11 rhesus. Exposure to 12 G centrifugation (varying durations) took place during the following sex cycles: proliferation, secretion, desquamation, and ovulation. Acceleration took place on a centrifuge with an arm radius of 7.25 m in a chest-back position. The behavior of the animals was monitored by TV, and cardiovascular and respiratory activity were used as criteria for the resistance of animals to acceleration. A photograph shows the position of a monkey fixed in the chair of the centrifuge. Table 1 shows the effect of acceleration on cardiovascular and respiratory activity.

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2

Table 1. Changes in pulse rate and respiration rate in monkeys exposed to 12 G (mean for 14 animals)

Physiological function	Before	During	After
Pulse rate	153--180	190--230	150--160
Respiration rate	24--36	36--48--54	18--36

The EKG's of animals exposed to acceleration revealed sinus tachycardia, shortened T-P intervals, and ventricular and atrioventricular extrasystole. Cardiac activity in general returned to normal 10-20 min after centrifugation. It was found that the endurance of female monkeys to 12 G ranged from 1 to 4.5 min. A histological analysis of the ovaries of monkeys examined 10 min, 1 hr, 24 hr, and 72 hr after termination of acceleration revealed the following deviations from normal: Proliferation phase: Weakly pronounced depolymerization of acid mucopolysaccharides in the medulla and separate cortical sections of the ovaries, as well as in the uterus. Ovulation: After one, and especially 3 days after the termination of the experiment, all ovarian tissues were found to be full of erythrocytes; The areas around the venules were plasmorrhagic and locally hemorrhagic; Acid mucopolysaccharide depolymerization was intense. Secretory phase: Two monkeys showed premature menstruation and

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ACC NR: AT6003866

hemorrhaging in the endometrium when examined 10 min after termination. This was attributed to the deleterious effects of acceleration. Examination of an animal 24 hr later revealed individual small hemorrhages in the cortical ovarian tissue. Some erythrocytes were observed along the vascular walls. Moderate depolymerization of acid mucopolysaccharides was evident.

Desquamative phase. A macro- and microscopic examination of the ovaries, Fallopian tubes, and uterus revealed the same changes as occurred during the proliferation phase.

It was apparent that acceleration had its greatest deleterious effect during ovulation and its minimum effect during proliferation. The observed deviations probably reflected neuroendocrine processes associated with stress reactions to acceleration. The long-term effects of acceleration were not evident one month after acceleration, demonstrating the ability of the ovaries to regenerate after various injuries. Orig. art. has: 5 figures and 2 tables. [ATD PRESS: 4091-F]

SUB CODE: 06 / SUBM DATE: none / ORIG REF: 004 / OTH REF: 006

QC

Card 3/3

LAPIN, B.A.; ROMANOVA, S.A.

Changes in the radiosensitivity in laboratory animals under the effect of sex hormones. Med. rad. 10 no.1:49-54 Ja '65. (MIRA 18:7)

1. Laboratoriya patologicheskoy anatomii Instituta eksperimental'noy patologii i terapii AMN SSSR, Sukhumi.

LAPIN, B.A.; DZHIKIDZE, E.K.; YAKOVLEVA, L.A.; CHUMAKOVA, M.Ya.; ADZHIGITOV, F.I.

Rate of infection of monkeys in the jungles of North Vietnam by the virus SV_{40}. Vop. virus. 10 no.2:226-228 Mr-Ap '65.

(MIRA 18:10)

1. Institut eksperimental'noy patologii i terapii AMN SSSR, Sukhumi, i Institut poliomiyelita i virusnykh entsefalitov AMN SSSR, Moskva.

LAPIN, B.A.

Simulation of human diseases in animals; selection of experimental animals. Vest. AMN SSSR 20 no.11:3-12 '65 (MIRA 19:1)

1. Institut eksperimental'noy patologii i terapii AMN SSSR, Sukhumi. Submitted July 13, 1965.

LAPIN, B.A.; ZIL'BER, L.A.; ADZHIGITOV, F.I. (Sukhumi)

Morphological characteristics of tumors induced with the Rous virus in monkeys. Arkh. pat. 27 no.9:61-63 '65.
(MIRA 18:12)

1. Otdel patologii Instituta eksperimental'noy patologii i terapii (direktor - prof. B.A. Lapin) AMN SSSR. Submitted August 5, 1964.

LAPIN, B. I.

655. Device for turning beads on tyre building apparatus. B. I. Lapin. U.S.S.R.P. 102908: Byull. Izobret. 1956, No. 4, 28; Kauch i Rezina, 1957, 16, No. 4, 45. 62A24.1

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TT

LAPIN, B.I.

Tree belts on the Solonetz soils of the Volga Valley. Put' i put.khoz. 5 no.6:30-31 Je '61. (MIRA 14:8)

1. Nachal'nik otdela zashchitnykh lesonasazhdeniy Privolzhskoy dorogi.
(Volga Valley--Windbreaks, shelterbelts, etc.)
(Solonetz soils)

LAPIN, B.N.

Traps in the lower Podkamennaya Tunguska River. Trudy Gor.-geol.inst.zap.-Sib.fil.AN SSSR no.17:157-167 '56.
(MIRA 13:5)
(Podkamennaya Tunguska Valley--Rocks, Igneous)

LAPIN, B.N.

Genesis of some Devonian pyroclastic rocks of the Rudnyy Altai. (MIRA 11:8)
Izv. Sib. otd. AN SSSR no.1:14-23 '58.

1.Zapadno-Sibirskiy filial AN SSSR.
(Altai Mountains--Volcanic, ash, tuff, etc.)

LAPIN, B.N.

Structural characteristics of certain igneous bodies of crator facies in Devonian effusive formations of the Gornyy Altai. (MIRA 13:9)
Geol. i geofiz. no.4: 92-103 '60.

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR.
(Altai Mountains--Rocks, Igneous)

LAPIN, B.N.

New data on the genesis of ferruginous quartzites in Tuva. Geol. i geofiz. no.4:110-113 '61. (MIRA 14:5)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR, Novosibirsk.
(Tuva Autonomous Province--Quartzites)

LAPIN, B.N.

Devonian volcanism and its role in the metallogeny of the Gornyy Altai. Trudy Inst. geol. i geofiz. Sib. otd. AN SSSR no.13:69-152 '63. (MIRA 17:6)

SUKHORUKOV, F.V.; LAPIN, B.N.; SIMONOVA, V.I.

Boron in Devonian volcanic rocks of the Gornyy Altai. Geokhimiia no.12:1280-1285 D '64. (MIRA 18:8)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR, Novosibirsk.

LAPIN, Boris Nikolayevich; LUCHITSKIY, I.V., otv. red.;
MARENINA, T.Yu., red.

[Atlas of the structures of Devonian volcanic rocks in the Gornyy Altai] Atlas struktur devonskikh vulkanogennykh porod Gornogo Altaia. Moskva, Nauka, 1965. 125 p.
(MIRA 18:11)

LAPIN, B.N.

Devonian effusive and intrusive complexes of the Gornyy Altai.
Izv. Alt. Geog. ob-va SSSR no.5:30-32 '65. (MIRA 18:12)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR.

PA 1/49T84

LAPIN, B. V.

USSR/Minerals Jan/Feb/Mar 48
Alumina
Aluminum

"Microscopy of Synthetic Alumina," D. S. Belyankin, Hon Mem, and B. V. Lapin, 4½ pp

"Zapiski V-S Mineral Obshch" Vol LXXVII, No 1

Much has been published regarding synthesis and properties of various forms and types of synthetic aluminum. Article describes properties observed by authors during process of making ceramics on synthetic aluminum bases.

1/49T84

LAPIN, B.V.

Experiments in using radio communication in mine shaft sinking. Trudy TSNIIPodzemshakhtstroia no.3:78-83 '64. (MIRA 18:9)

L 9656-66
ACC NR: AP6000280 SOURCE CODE: UR/0232/65/000/010/0061/0062

27
B

AUTHOR: Lapin, V.B. (Engineer)

ORG: None

TITLE: Reliability of power supply to automatic interlock systems on electrified sections of the railroad

SOURCE: Zheleznodorozhnyy transport, no. 10, 1965, 61-62

TOPIC TAGS: railway equipment, storage battery, electric power source, high voltage line, electric distribution equipment, electric power engineering

ABSTRACT: The operation of high-voltage lines supplying power to signal, centralization, and interlock devices in a majority of electrified sections of the railroad of the Soviet Union was transferred in 1963 from the signals and communications services to electrification and power engineering services of the country. One of the main factors for raising the reliability of supplying power to the auxiliary devices is providing reserve power units for signal devices in the event of failure of the main power source. The non-electrified sections provide power by means of DC storage batteries. An analysis of cases of failure of power supply sources shows

UDC: 656.256.3:621.331

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Card 1/2

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ACC NR: AP6000280

that the number of such cases is absolutely and relatively greater on electrified sections than on non-electrified sections. This is explained mainly by the absence or unreliability of reserve power units on the electrified sections. The author cites several examples and presents suggestions for improving the situation.

SUB CODE: 09, 13 / SUBM DATE: None

Card 2/2

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Network protection of the RMNV-560x6 mercury arc rectifiers. (MLRA 7:7)
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VASIL'KOV, G.V.; IVANOVA, V.I.; MOSHCHANSKIY, N.S.; LAPIN, D.; ABISHEV, A.R.; ZHDANOV, A.; ATEMASOV, S.; MEN'SHUTKIN, S.; AVDEYEV, I.; AKMENTIN', E.

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LAPIN, G.L.; TREGUBOV, A.N.

Improvement of working carnallite in Upper Kama mines.
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Selection and technical and economic bases for using self-propelled heading equipment in Upper Kama potash mines. Nauch. trudy Perm NIUI no.3:81-98 '63. (MIRA 17:3)

BARKOVSKIY, V.M., inzh.; VODOP'YANOV, V.L., inzh.; LAPIN, G.L., inzh.

Improving the boring and blasting operations in the carnallite deposits of Solikamsk potash mines. Vzryv. delo no.57/14: 322-330 '65. (MIRA 18:11)

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USSR/Mathematics - Interpolation Nov/Dec 51

"Interpolation in a Class of Entire (Integral) Functions of Finite Order and of Finite Type," G. P. Lapin, Skytyvkar

"Matemat Sbor" Vol XXIX (71), No 3, pp 565-580

Proposes the following problem: Find the necessary and sufficient conditions which must be imposed upon the sequences (L_n) and (p_n) in order that for any system of complex numbers (a_{niq}) which satisfies only a certain essential condition there should exist at least one entire (integral) function w (z) in $\overline{R}$, oo) with the property: $w^{(1-l)}(eq_{L_n}) = a_{niq}$. $\overline{R}$,b) 198T38

USSR/Mathematics - Interpolation (Contd) Nov/Dec 51

designates the class of entire functions of order not higher than R but of a type less than b. The problem for the case $p_1 = 1$ has been solved by A. F. Leont'yev. Submitted 20 Mar 51. 198T38

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Integral functions of finite order taking prescribed values in given points together with the derivatives. Sib. mat. zhur. 6 no.6:1267-1281 N-D '65.

(MIRA 18:12)

16(1) 05259
AUTHOR: Lapin, G.P. SOV/140-59-5-15/25

TITLE: Interpolation in the Class of Entire Functions of Finite Order

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Matematika, 1959, Nr 5, pp 146-153 (USSR)

ABSTRACT: Theorem: Let $\{\lambda_n\}$, $|\lambda_1| \leq |\lambda_2| \leq \ldots \leq \lambda_n \leq \ldots$, $\lambda_n \to \infty$ be a complex and $\{p_n\}$ a positive integral number sequence. In order that to every number system a_{nk} $(n=1,2,\ldots;\ k=1,2,\ldots,p_n)$ for which

(A) $\overline{\lim_{n\to\infty}} \frac{1}{\ln|\lambda_n|} \ln \ln \max|a_{nk}| \leq \varrho$, $k=1,2,\ldots,p_n$

there exists at least one entire function $\omega(z)$ of the order and with the property

(1) $\omega^{(k-1)}(\lambda_n) = a_{nk}$ $(n=1,2,\ldots;\ k=1,2,\ldots,p_n)$,

it is necessary and sufficient that

(B) $\sum_{n=1}^{\infty} p_n |\lambda_n|^{-(\varrho+\varepsilon)}$

converges for all $\varepsilon > 0$,

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